ABSTRACT

The present invention relates to a process for making an electromagnetically conductive textile, having a conductivity gradient through the thickness of the fabric, comprising the steps of (a) forming a knit, woven or nonwoven fabric characterized by (i) a variation in fiber surface area per unit of volume, through the thickness of the fabric; or (ii) a variation in susceptibility of the fibers to coating, through the thickness of the fabric; and (b) applying a conductive coating to fibers in the fabric, to create a conductivity gradient through the thickness of the fabric.

ABSTRACT

The present invention relates to a process for making an electromagnetically conductive textile fabric comprising conductive fibers arranged to provide textile, having a conductivity gradient through its thickness. The fibers may be intrinsically conductive or coated with a conducting material and the gradient can be related to variances in fiber the thickness of the fabric, comprising the steps of (a) forming a knit, woven or nonwoven fabric characterized by (i) a variation in fiber surface area per unit of volume, through the density, fiber diameter (fineness) and fiber conductivity. The fabric can be used to eliminate or reduce electromagnetic interference (EMI) in various applications thickness of the fabric; or (ii) a variation in susceptibility of the fibers to coating, through the thickness of the fabric; and (b) applying a conductive coating to fibers in the fabric, to create a conductivity gradient through the thickness of the fabric.